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|----------------------------------|-------------|----------------------|---------------------|------------------|
| APPLICATION NO.                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/533,814                       | 06/03/2005  | Shoji Ito            | HIR-001             | 4306             |
| 32628                            | 7590        | 06/15/2009           | EXAMINER            |                  |
| KANESAKA BERNER AND PARTNERS LLP |             |                      | MULCAHY, PETER D    |                  |
| 1700 DIAGONAL RD                 |             |                      | ART UNIT            | PAPER NUMBER     |
| SUITE 310                        |             |                      | 1796                |                  |
| ALEXANDRIA, VA 22314-2848        |             |                      |                     |                  |
| MAIL DATE                        |             | DELIVERY MODE        |                     |                  |
| 06/15/2009                       |             | PAPER                |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                   |
|------------------------------|--------------------------------------|-----------------------------------|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/533,814 | <b>Applicant(s)</b><br>ITO ET AL. |
|                              | <b>Examiner</b><br>Peter D. Mulcahy  | <b>Art Unit</b><br>1796           |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 April 2009.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 3-9 is/are pending in the application.  
 4a) Of the above claim(s) 3-5, 8 and 9 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,6 and 7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-166/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1,6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The claimed recitation "from poly(methyl methacrylate), poly(butyl methacrylate), poly(ethyl acrylate, poly(butyl acrylate), and poly(2-ethylhexyl acrylate), and their copolymers as a processing aid" renders the claims indefinite. This recitation is directed to homopolymers of the recited monomers. To state "and their copolymers" is indefinite because it is unclear as to comonomers and how one is to formulate copolymers from the claimed homopolymers. Further, if applicant intends to claim copolymers, all comonomers need be identified as such.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cusack et al US 6,150,447 in view of Harvey et al. US 5,744,525.

Art Unit: 1796

6. Cusack clearly teaches flame retardant polyvinyl chloride compositions. These compositions incorporate the claimed ZHS + MgOH, see example 14 in view of example 9. The difference between the claimed invention and this teaching is the art does not show the incorporation of the claimed acrylate processing aids.

7. The Harvey patent is cited as showing very similar pvc compositions incorporation the claimed processing aids. Specifically, the Paraloid K175 is seen to fall within the scope of the claims. This is a methyl methacrylate, butyl acrylate, styrene copolymer. Applicant should note that "BA" is butyl acrylate and not butadiene, as alleged. In any event, the claimed copolymers are known and conventional processing aids. It would have been obvious to incorporate the known conventional processing aids of Harvey in the composition of Cusack. One would have been motivated to select known conventional processing aids for incorporation into Cusack given the understanding of the beneficial results from doing so.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter D. Mulcahy whose telephone number is 571-272-1107. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter D. Mulcahy/  
Primary Examiner, Art Unit 1796